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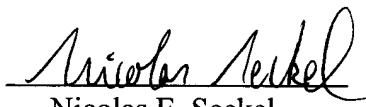
For: TRANSPARENT OR TRANSLUCENT PAPER ENVELOPE

CERTIFICATION OF TRANSLATION OF PCT/FR99/00745

The undersigned certifies that he is fluent in the French language and in the English language, and that this is a true and correct translation of the original.

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## ENVELOPE MADE OF TRANSPARENT OR TRANSLUCENT PAPER

The present invention concerns a transparent or translucent paper product  
5 which is made by gluing two sheets of paper or one folded sheet of paper.

We already know envelopes made of opaque paper which are made by  
folding one sheet to form a front face, a back face, the back face comprising two  
lateral flaps, one lower flap and one longitudinal upper flap. The two lateral flaps  
are attached to the lower flap by means of a glue or adhesive. The process of  
10 depositing such a glue or adhesive consists in taking the glue or adhesive from a  
recipient by means of a metal blade which is attached to a cylinder. When the  
cylinder rotates, the metal blade skims the surface of the glue in the recipient and  
carries off part of the glue or adhesive, and then, this glue or this adhesive is  
deposited on the flaps of an envelope. A deposit of glue is thus obtained along the  
15 flap of the envelope, this deposit of glue having a length less than the height of the  
flap and a width of a few millimeters. This deposit of glue has irregular edges owing  
to the depositing process by means of a blade and a cylinder. As the paper is  
opaque, the deposit of glue is masked by the opacity of the paper.

A purpose of the present invention is to supply a transparent or translucent  
20 envelope, preferably made of paper, by folding one sheet to form two lateral flaps  
and one longitudinal flap and by depositing a glue or an adhesive, the deposit of  
adhesive or glue being such that it gives the envelope an aesthetic appearance.

A first problem which arises in making an envelope out of transparent or  
translucent paper is that when glue is deposited on a flap and the two faces of paper  
25 are attached together, the glue, although translucent, is visible because the paper is  
transparent. Consequently, if the deposit of glue is made in an uncontrolled manner,

the edges of the deposit are blurred and give the envelope an unaesthetic appearance.

A second problem which arises is that when a translucent or transparent paper such as tracing paper is used, if the deposit of glue is about one centimeter wide, the water in the glue tends to make the paper curl. Indeed, tracing paper is a 5 paper which is obtained by beating the cellulose fibers in paper stock to a high degree to form fibrillae and thus give the paper a transparent quality. Beating the fibers to a high degree means that the tracing paper thus obtained is highly sensitive to water.

10 The invention therefore aims to solve these problems.

One aim of the present invention is thus to supply a product comprising at least two transparent or translucent sides, preferably of paper, glued by means of a glue or an adhesive and having a certain aesthetic appearance.

15 Another aim of the present invention is to supply such a product comprising a deposit of glue sensitive to pressure and not undergoing deformation when such a glue or adhesive is deposited.

Thus, the invention concerns a product comprising at least two transparent or translucent sides attached one to the other by means of a deposit of adhesive or glue, characterized in that the deposit of adhesive or glue has a specific shape visible by transparence and by reflection.

20 According to one embodiment of the invention, the product comprises a front face, a back face, the back face comprising several flaps attached by means of a deposit of glue having a specific shape visible by transparence and by reflection.

25 The document EP-A-0 256 731 (Moore Business Forms) describes a product comprising at least two transparent faces attached to one another by means of a deposit of adhesive having a certain shape. However, this document does not describe and does not suggest that the deposit of adhesive is visible in any manner to

confer an aesthetic appearance to the product.

Preferably, the product is such that the deposit of glue is made up of three parallel and substantially equidistant lines.

According to one preferred embodiment of the invention, the deposit of glue  
5 is in a direction parallel to the lateral edges of the upper face.

Preferably, the product according to the invention comprises an upper flap having a deposit of glue, this glue or adhesive being sensitive to pressure and the deposit being made up of multiple dots in a substantially rectangular or square shape, and being aligned and separate from one other.

10 The deposit of glue or adhesive on the flaps of the product is preferably made up of several narrow strips separate from one another and parallel.

The invention also concerns a process of making such a product. This process consists in cutting out a transparent or translucent sheet, preferably of paper, and depositing an adhesive or a glue having a specific shape determined by a  
15 printing process. Preferably, the printing is done by a roller which is dipped in a tray of glue or adhesive, this roller then coming in contact with a roller having cavities which, in turn, deposits the glue or adhesive on a next cylinder, thus regulating its deposit of glue or adhesive. This last cylinder in turn prints the paper.

According to the invention, the glues or adhesives are transparent and when  
20 they are seen through the sheets, that is, when they are seen by transparence, the glues or adhesives are light whereas when they are seen by reflection, these glues or adhesives are dark. This optical effect is due to the transparency of the paper.

The glues or adhesives may be colored with a dye or a pigment, or may contain pearly pigments, iridescent pigments or similar pigments.

25 The transparent or translucent faces are made up of one or several sheets of paper obtained by transparentizing a sheet of opaque paper or obtained by beating

paper stock to a high degree.

The following description along with the enclosed drawings provided as a non restrictive example will help understand how the invention can be put into practice.

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Figure 1 is a view of a product according to the invention.

Figure 2 is a diagram of a process for making the product of Figure 1.

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The invention concerns a product 1 according to the invention and more particularly an envelope. This product comprises at least one back face 2 and one front face 3. Faces 2 and 3 are obtained by folding along line 4. We can envisage a product according to the invention which comprises one back face and one front face 3 which are made of separate sheets. The back face 2 and front face 3 may, preferably, be made of a transparent or translucent paper. They may also be made of a transparent or translucent material which is for example a transparent or translucent polymer or a transparent or translucent composite material made of polymer/paper. Preferably, the sheets are made of transparent or translucent paper, and this paper may have been obtained by transparentizing an opaque paper with a transparentizing composition. This type of transparentized paper is commonly made and sold in the United States of America. The sheets may also be made of a transparent or translucent paper, of the tracing paper type commonly made and sold in Europe. This paper is obtained by beating the paper stock so as to obtain a large number of fibrillae which make the paper transparent. The transparent or translucent paper may be colored or may be white. The back sheet 2 and the front sheet 3 are attached one to the other by means of a deposit of glue. According to the invention, the deposit of glue has a predetermined shape. "Predetermined shape" means a shape which is established in advance, before the glue or adhesive is deposited. This shape is variable and may for example be a stroke, a circle, an arabesque, etc. Moreover,

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the glue or adhesive are transparent in themselves. However, when the glue or adhesive is deposited either on the back face 2, or on the front face 3, when the faces are attached to each other, after the glue or the adhesive has dried, the deposit of glue or adhesive is visible when the product is being looked at by transparence.

5 The deposit of glue or adhesive is then lighter than the two faces, back face 2 and front face 3. Thus, the fact of depositing a glue or an adhesive on a face makes the paper more transparent than it was initially.

When the faces are being looked at in reflection, that is, when the back face 2 and front face 3 are placed on a substantially horizontal base and are being looked at

10 with the naked eye, the deposit of glue or adhesive seems darker than the two faces, back face 2 and front face 3.

The product according to the present invention may be for example a jacket made up of a front face 3 and a back face 2 comprising two flaps 4 and 5 which are attached to the lower flap by a deposit of glue. Such a jacket may be used to pack

15 compact disks and in this case, the jacket will be substantially square once it is attached.

Preferably, the product according to the present invention is an envelope such as shown in Figure 1. This envelope comprises a back face 2, a front face 3, lateral flaps 4 and 5 and an upper flap 6. The lower flap is attached to flaps 4 and 5 by

20 means of a deposit of glue and/or adhesive. More preferably, the deposit of glue is made up, on each side of the lower flap, of a set 7 and 8 of three lines 9, 10, 11 and 12, 13, 14, respectively. These lines are laid for example parallel to the lateral edge 15 of the envelope formed by the fold between flap 4 and the lower face 3 as shown for the set of lines 7.

25 According to a preferred embodiment of the present invention, the lines are laid parallel to the lateral edge 16 of the lower flap, this lateral edge 16 of the lower

flap slanting lightly at an angle  $\alpha$  in relation to the lateral edge 15' of the envelope. Lines 9, 10, 11 and 12, 13, 14 are of a length substantially the same as the height of the upper face 2. Lines 9, 10, 11 are equidistant as are lines 12, 13, 14, respectively. The lines are about 1 mm thick and are about 1.5 mm away from each other.

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According to a preferred embodiment of the present invention, the envelope has on its flap 6 a glue or an adhesive sensitive to pressure. This deposit of glue is made up of a plurality of dots 17 having substantially rectangular or square shapes, aligned parallel to the fold line 18 between flap 6 and the front face 3. The dots 17 are aligned and preferably equidistant one from another.

These dots may be a plurality of narrow strips separated from one another and parallel as shown in Figure 1.

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Because the dots 17 form a discontinuous strip when the dots of glue or adhesive 17 are deposited, the transparent or translucent paper does not curl. Indeed, the deposits are discontinuous and therefore the paper on which the dots of glue or adhesive in solution in a solvent such as water and/or alcohol are deposited is subjected only discontinuously to the action of the water and/or alcohol solvent.

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The invention also concerns a process of making a transparent and/or translucent product made up of at least two faces of a paper which are attached with an adhesive or a glue, the deposit of the adhesive or the glue having a shape determined by a printing process. Such a printing process is much more precise than a deposit with a blade such as used in the former technique. Thus, the shapes of glue deposited can be precise and definite. The process of manufacture is such that the glue or adhesive is deposited by means of a roller 19 which is dipped in a bath 20 of glue or adhesive in solution as shown in Figure 2. This roller 19 then enters into contact with a roller 21 which has cavities where the glue 20 is filled. Then, roller

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21 deposits the glue or adhesive on a cylinder 22, thus regulating its deposit of adhesive. This last cylinder 21 in turn prints the transparent or translucent paper 23 which unrolls from a feed roller 24.

The glues or adhesives used according to the invention may be colored with a 5 pigment, but, preferably, must remain transparent so as to obtain the optical effect mentioned above. The glues or adhesives used may be colored and non-transparent. In this case, when the deposit of glue is seen by transparence, it will be darker than the combination of the upper sheet 2 and lower sheet 3 and of a different color.

The glues or adhesives according to the present invention may also contain 10 pearly pigments, iridescent pigments or similar pigments.

Another printing process than that described above may also be used to deposit the glue. For example, a screen-printing process or an offset process may be used as long as the deposit of glue or adhesive is precise and gives defined shapes. Varied optical effects are thus obtained through the transparency of the paper, the 15 color of the paper, the transparency or lack of transparency of the glue, the color or lack of color of the glue.